

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** Primary Petroleum Corporation  
**Well Name/Number:** Dupuyer Ridge 14-27-28-7  
**Location:** SE SW Section 27T28N R7W  
**County:** Pondera, **MT;** **Field (or Wildcat)** Wildcat

**Air Quality**

(possible concerns)

Long drilling time: No, 15 to 20 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill to 6,000' TD Duperow Formation.

Possible H2S gas production: Yes possible H2S gas production.

In/near Class I air quality area: Yes Class I air quality area 11.8 miles to the northwest Blackfeet Indian Reservation boundary and the Lewis and Clark National Forest boundary, about 18.5 miles west from this location.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under rule 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: No special concerns – using triple derrick drilling rig to drill to 6000'

TD.

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system. Mainhole drilled with freshwater/mud system.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is the Middle Fork Dry Fork Marais River, about 1/8 of a mile to the south from this location.

Water well contamination: None, closest water wells are about 3/8 of a mile to the west southwest, about 1/2 of a mile to the south and about 5/8 of a mile to the south southeast from this location. Depth of these water wells range from 40' to 220'. This well will drill surface hole with freshwater, set 750' of steel surface casing and cement to surface.

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: Yes, Middle Fork Dry Fork Marias River.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: \_\_\_\_\_

Comments: 750' of surface casing cemented to surface adequate to protect freshwater zones. Freshwater mud to be used to drill the mainhole to total depth.

## Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: Yes will cross Middle Fork Dry Fork Marias River over private road to reach this location.

High erosion potential: No, small cut, up to 9.0' and small fill, up to 7.7', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 350'X350' location size required.

Damage to improvements: Slight, appears to be grass grazing land.

Conflict with existing land use/values Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other \_\_\_\_\_

Comments: Access will be over existing county road, Ferret Road and unnamed county/ranch road. Will build about 3/8 of a mile of new access road into this location. Cuttings will be stockpiled on location, when dry cuttings will be spread across location. Drilling fluids will be recycled to the next drilling location. No pit will be utilized. No special concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residence is about 1 mile to the northeast from this location. The town of Dupuyer, Montana is about 3 miles to the north from this location.

Possibility of H<sub>2</sub>S: Yes H<sub>2</sub>S possible.

Size of rig/length of drilling time: Small drilling rig/short 15 to 20 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H<sub>2</sub>S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: BOP stack is 5,000 psi double ram with a 5,000 psi Annular on top of the double ram. Distance is sufficient to not be a problem with noise.

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): Lewis and Clark National Forest boundary and the wilderness boundary (Bob Marshal) are about 18.5 miles to the west.

Proximity to recreation sites: About 17 miles to the west is Swift Reservoir and 10.8 miles to the southwest is the Blackleaf State Wildlife Management Area boundary.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Threatened or endangered Species listed on USFWS website for counties in Montana lists the following: Piping Plover, Grizzly Bear and Canada Lynx. Candidate species listed are the Sprague's Pipit, Wolverine and the White bark pine. NH Tracker website lists the following as species of concern thirteen (13) Sprague's Pipit, American Bittern, Chestnut Collared Longspur, Cassin's Finch, Veery, Boblink, Alder Fly-catcher, Clark's Nutcracker, Long-billed Curlew, Horned Grebe, McCown's Longspur, Brewer's Sparrow and Pacific Wren.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: \_\_\_\_\_

Comments: Private grass grazing surface lands. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

### **Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: \_\_\_\_\_

Comments: Private grass grazing surface lands. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

### **Social/Economic**

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: Wildcat well, until production is established no social/economic concerns can be evaluated. No concerns

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### **Remarks or Special Concerns for this site**

Well is a 6000' TD Duperow Formation test.

### **Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term impacts will occur, but can be mitigated in a short time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki  
(title:) Chief Field Inspector  
Date: November 19, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Pondera County water wells.  
(subject discussed)  
November 19, 2011  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES  
MONTANA COUNTIES, Pondera County  
(subject discussed)

November 19, 2011  
(date)

Montana Natural Heritage Program Website (FWP)  
(Name and Agency)  
Heritage State Rank= S1, S2, S3, T28N R7W  
(subject discussed)

November 19, 2011  
(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_